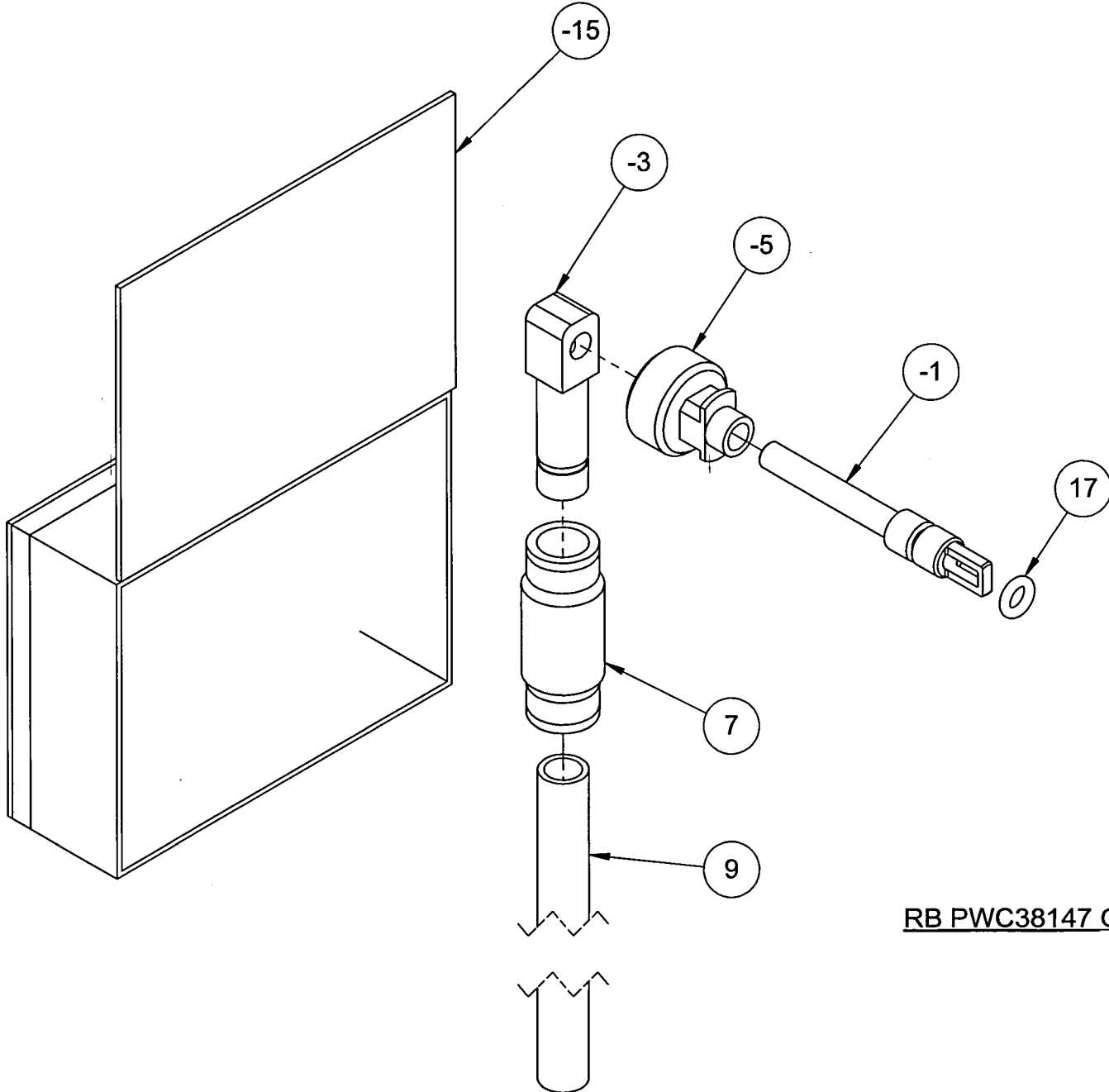


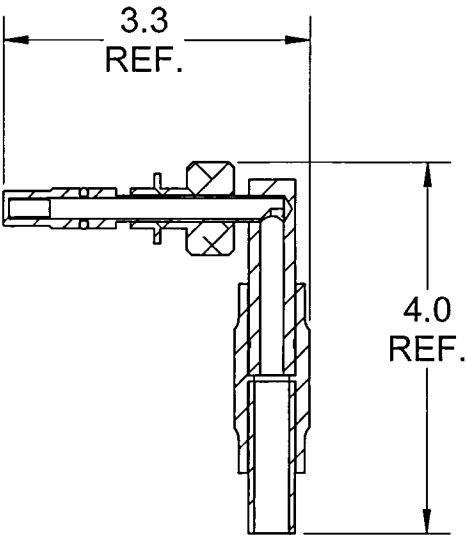
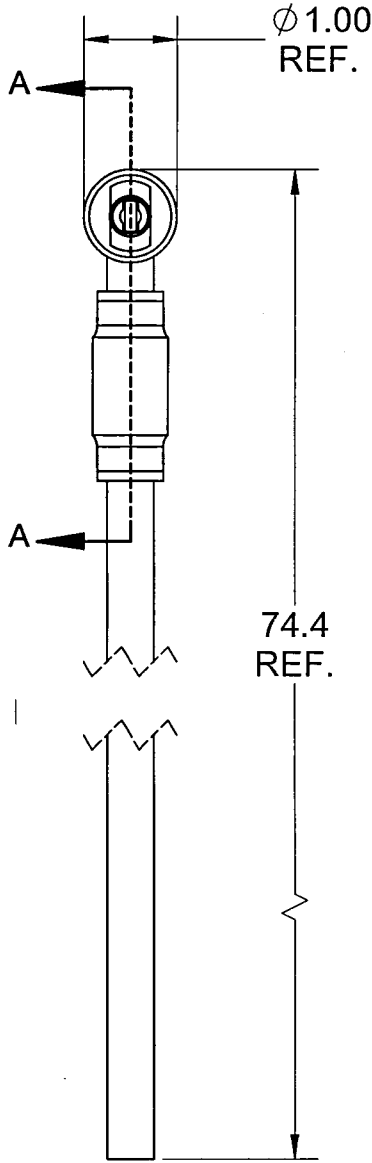
ITEM #	QTY	PART #	TITLE	PG
-1	1	RB PWC38147-1	DRAIN QUILL	2
-3	1	RB PWC38147-3	HOSE END	3
-5	1	RB PWC38147-5	CONNECTOR	4
-15	1	RB PWC38147-15	PACKAGING ASSY	5
7	1	McMaster#51495K116	COUPLING 1/2" DIA	-
9	1	KURI TECH #K010-0608	HOSE 1/2" OD x 3/8" ID x 6 ft LG.	-
17	1	McMaster#446AT531	MIL SPEC. OIL-RESISTANT BUNA-N O-RING 1/4" ID. X 7/16" OD.	-

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-690	17.11.07	VM	WM

SEE ATTACHED DEVIATION



RB PWC38147 OIL DRAIN TOOL



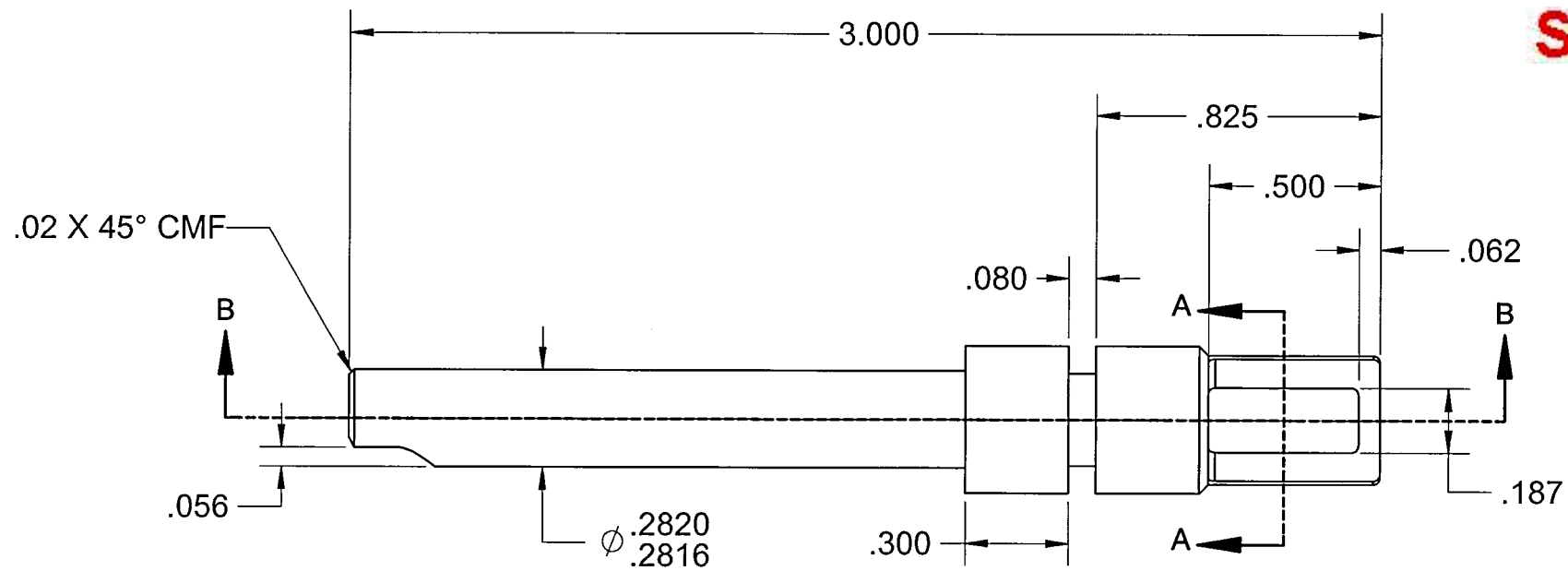
SECTION A-A

UNDER REVIEW

URF 19-945 19.10.23 (VM)

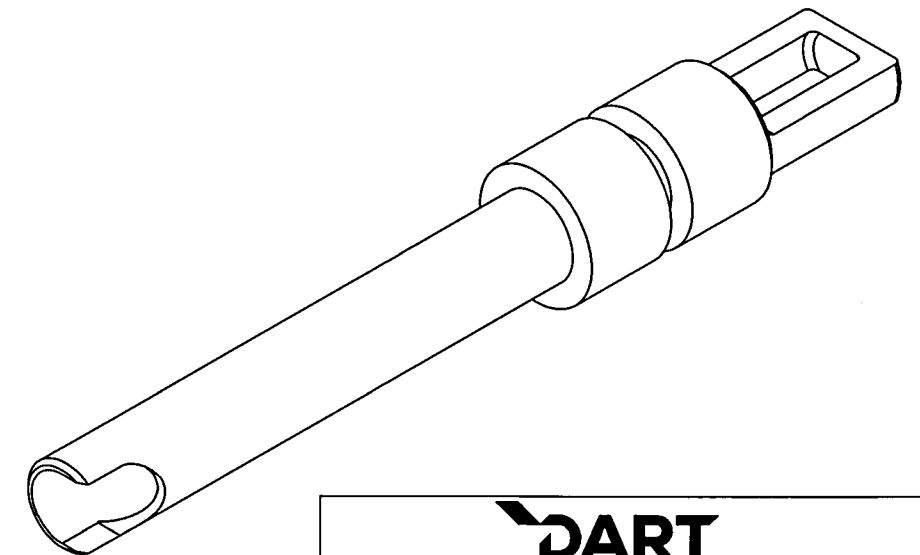
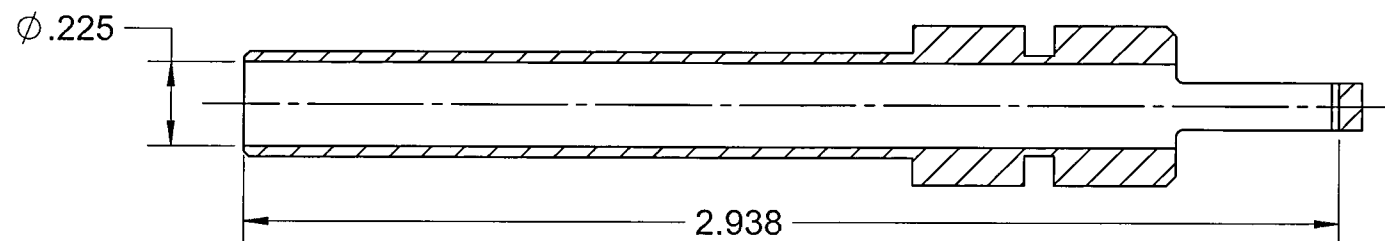
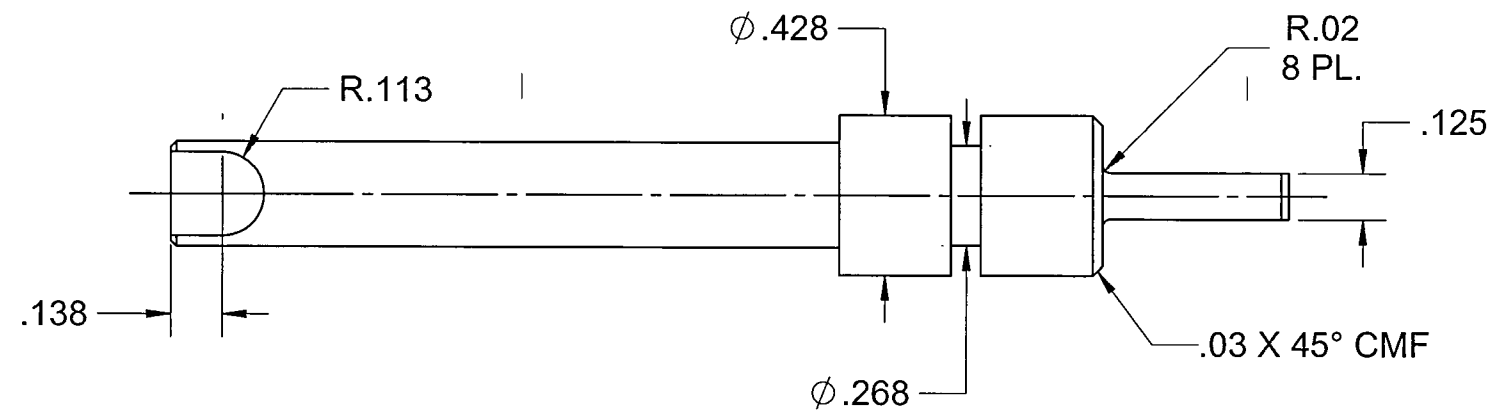
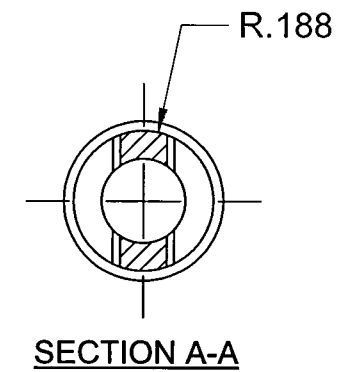
- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) HEAT TREAT: N/A
 - 4) SPEC: N/A
 - 5) BREAK ALL SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) REF. PRATT & WHITNEY T/N: PWC38147 B.

DART AEROSPACE Hawkesbury, Ontario, Canada	
TITLE OIL DRAIN TOOL	
DWG NO. RB PWC38147	REV A
DESIGN BY: VM 9/13/2017	.XXX ± .005 FRACTIONS ± 1/8
DRAWN BY: VM 10/30/2017	.XX ± .01 ANGLES ± 5°
CHECKED: SAC 10/30/2017	.X ± .1 SURFACES = 125
MFG. APPR: DD 10/31/2017	1. DIMENSIONS ARE IN INCHES
APPROVED: WM 11/07/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DATE: 10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING
SCALE: NTS	WEIGHT: SHEET 1 OF 5
COPYRIGHT © 2017 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



SEE ATTACHED DEVIATION

UNDER REVIEW
URF 19-945 19.10.23 (VM)



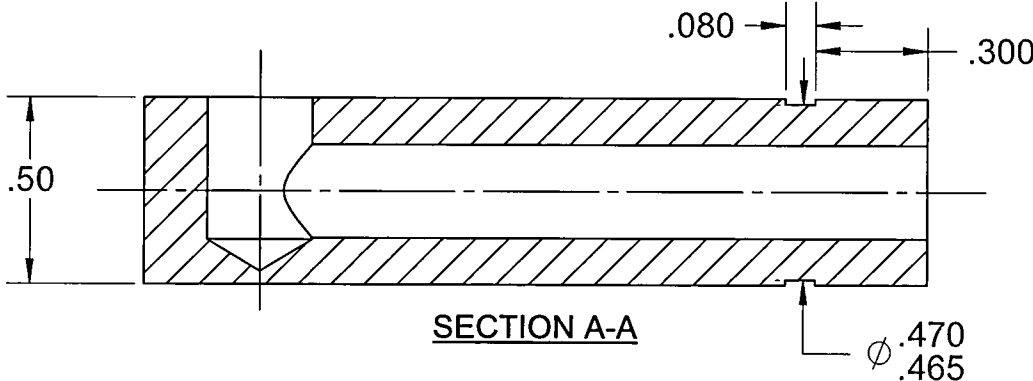
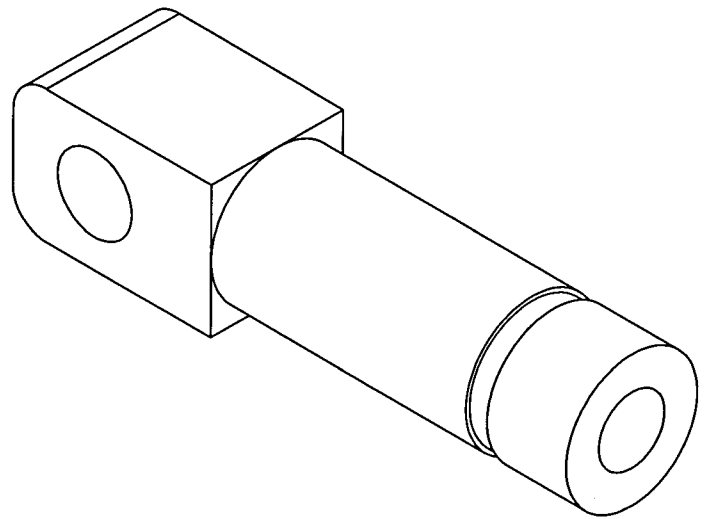
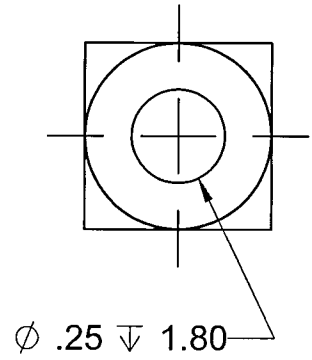
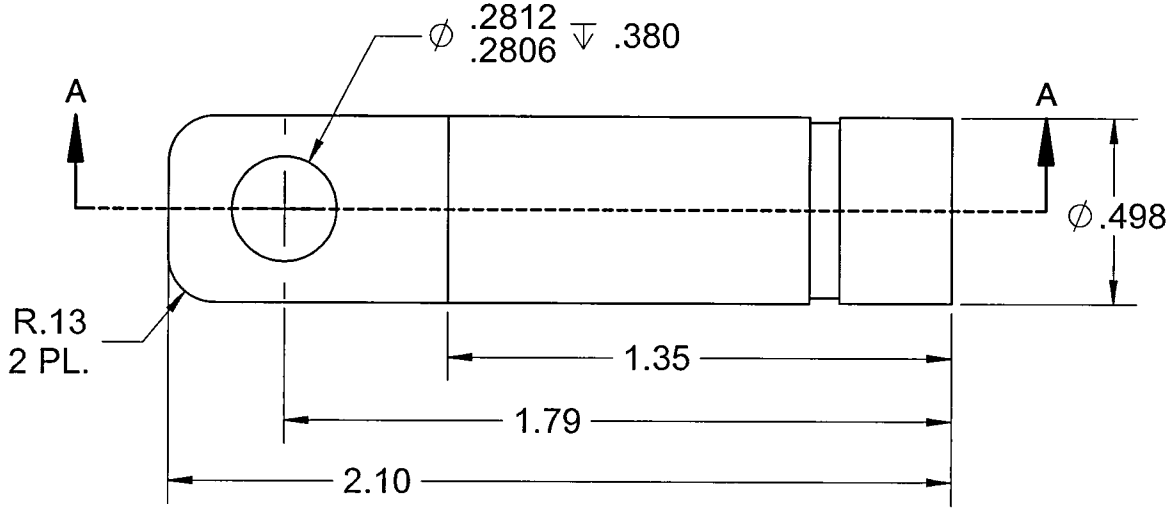
- NOTES:**
- 1) MATERIAL: 6061-T6
 - 2) FINISH: RED ANODIZE
 - 3) HEAT TREAT: N/A
 - 4) SPEC: MIL-A-8625, TYPE II, CLASS 2; WATER SEALANT
 - 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
 - 6) IDENTIFICATION: N/A

SECTION B-B

RB PWC38147-1 DRAIN QUILL

TITLE DRAIN QUILL			
DWG NO. RB PWC38147-1			REV A
DESIGN BY: VM 9/13/2017	DRAWN BY: VM 10/30/2017	CHECKED: SAC 10/30/2017	MFG. APPR: DD 10/31/2017
DATE: 10/30/2017		APPROVED: WM 11/07/2017	
SCALE: NTS		WEIGHT: 	
SHEET 2 OF 5			
COPYRIGHT © 2017 BY DART AEROSPACE LTD			
<small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>			

SEE ATTACHED DEVIATION



UNDER REVIEW

URF 19-945 19.10.23 (VM)

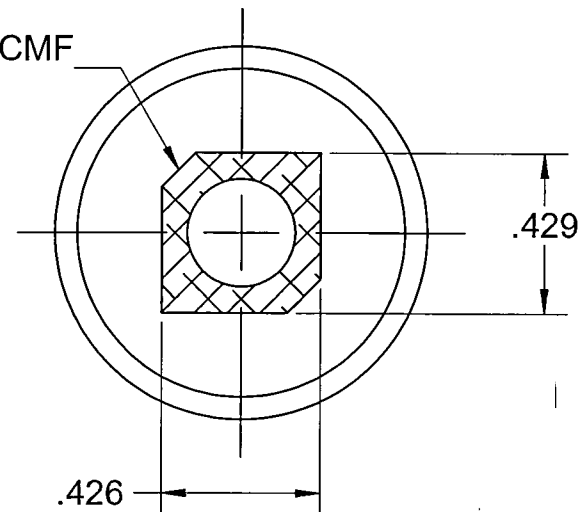
RB PWC38147-3 HOSE END

- NOTES:
- 1) MATERIAL: 6061-T6
 - 2) FINISH: RED ANODIZE
 - 3) HEAT TREAT: N/A
 - 4) SPEC: MIL-A-8625, TYPE II, CLASS 2; WATER SEALANT
 - 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
 - 6) IDENTIFICATION: N/A

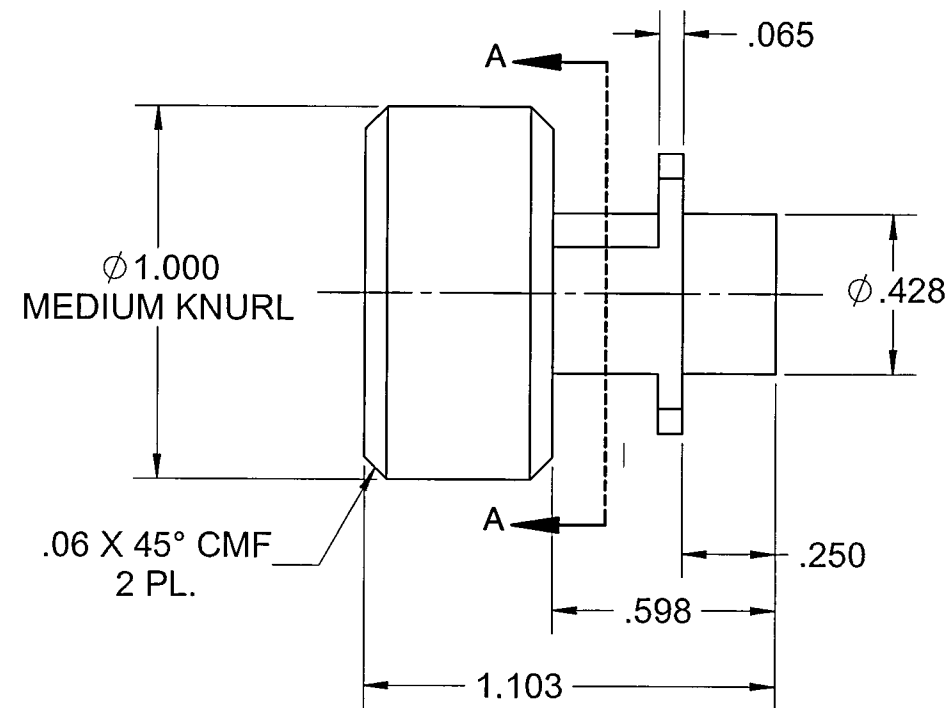
DART AEROSPACE Hawkesbury, Ontario, Canada			
TITLE HOSE END			
DWG NO. RB PWC38147-3			REV A
DESIGN BY:	VM 9/13/2017	XXX ± .005	FRACTIONS ± 1/8
DRAWN BY:	VM 10/30/2017	XX ± .01	ANGLES ± 5°
CHECKED:	SAC 10/30/2017	X ± .1	SURFACES = 125
MFG. APPR:	DD 10/31/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
APPROVED:	WM 11/07/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE:	10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE:	NTS	WEIGHT:	SHEET 3 OF 5
COPYRIGHT © 2017 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

SEE ATTACHED DEVIATION

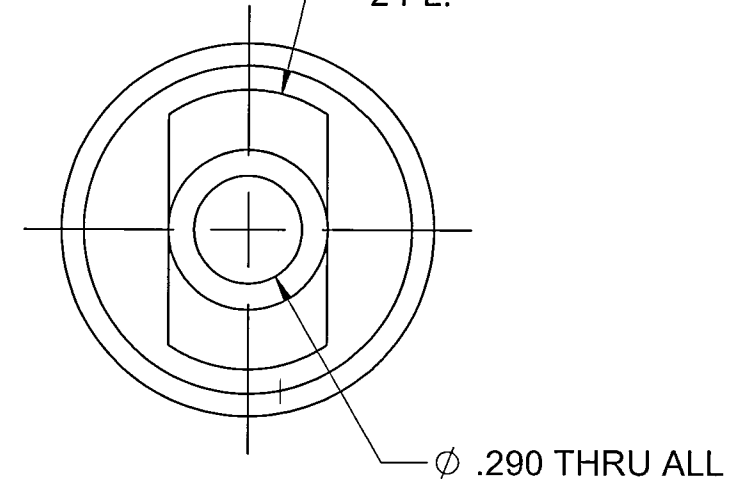
.09 X 45° CMF
2 PL.



SECTION A-A



R.375
2 PL.



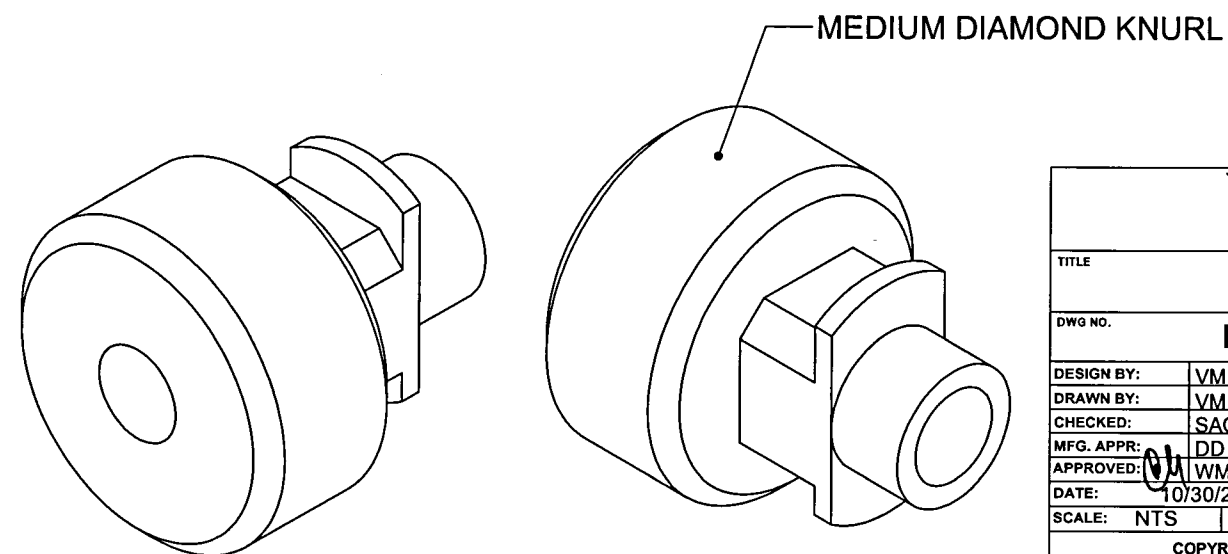
UNDER REVIEW

URF 19-945 19.10.23 (VM)

RB PWC38147-5 CONNECTOR

NOTES:

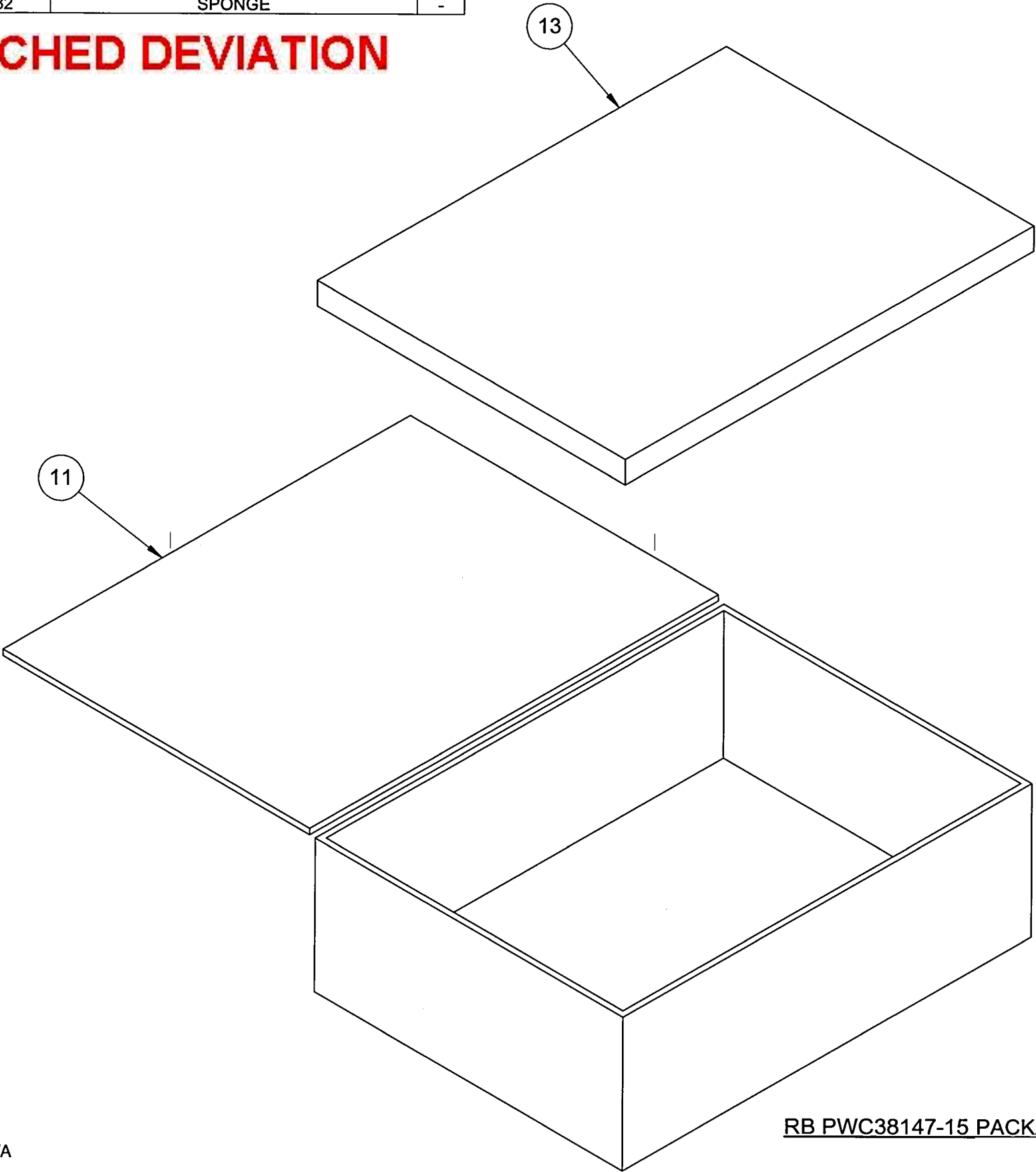
- 1) MATERIAL: 6061-T6
- 2) FINISH: RED ANODIZE
- 3) HEAT TREAT: N/A
- 4) SPEC: MIL-A-8625, TYPE II, CLASS 2; WATER SEALANT
- 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
- 6) IDENTIFICATION: N/A



DART AEROSPACE Hawkesbury, Ontario, Canada			
TITLE CONNECTOR			
DWG NO. RB PWC38147-5			REV A
DESIGN BY:	VM 9/13/2017	XXX ± .005	FRACTIONS ± 1/8
DRAWN BY:	VM 10/30/2017	XX ± .01	ANGLES ± 5°
CHECKED:	SAC 10/30/2017	X ± .1	SURFACES = 125
MFG. APPR:	DD 10/31/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
APPROVED:	WM 11/07/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE:	10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE:	NTS	WEIGHT:	0.041 LBS
		SHEET 4 OF 5	
COPYRIGHT © 2017 BY DART AEROSPACE LTD			
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

ITEM #	QTY	PART #	TITLE	PG
11	1	TED PELLA #139-31	PLASTIC BOX	-
13	1	McMaster#7271T32	SPONGE	-

SEE ATTACHED DEVIATION




- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) HEAT TREAT: N/A
 - 4) SPEC: N/A
 - 5) BREAK ALL SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A

RB PWC38147-15 PACKAGING ASSY

UNDER REVIEW

URF 19-945 19.10.23 (VM)

 Hawkesbury, Ontario, Canada			
TITLE PACKAGING ASSY			
DWG NO. RB PWC38147-15			REV A
DESIGN BY:	VM 9/13/2017	.XXX ± .005	FRACTIONS ± 1/8
DRAWN BY:	VM 10/30/2017	.XX ± .01	ANGLES ± 5°
CHECKED:	SAC 10/30/2017	.X ± .1	SURFACES = 125
MFG. APPR:	DD 10/31/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
APPROVED:	WM 11/07/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE:	10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE:	NTS	WEIGHT:	N/A
		SHEET 5 OF 5	
COPYRIGHT © 2017 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. RB PWC38147 Rev. A		DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>		DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Eng. (Non-AW) <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/>																															
Date : _____		Sequence #: _____		QTY Affected : _____		MRB (QSI042) <i>M. Lee</i> Oct 30, 2018																													
Description Work Order Deviation				Disposition																															
Kuri-Tech Hose (K010-0608) easily pulls out of Coupling (McMaster Carr 51495K116)				Install a 1.0" long, 0.38" OD, 0.25" ID piece of Stainless Steel into one end of the Kuri-Tech Hose until flush. Attach the modified end of the Kuri-Tech Hose to the Coupling before placing tool into packaging (if applicable). This deviation is acceptable. The fit, form and function of the part will be as originally intended.				Completed By																											
								Lead hand / Supervisor																											
								QC / QA Coordinator																											
Root Cause Operator <input type="checkbox"/> Manufacturing Process <input type="checkbox"/> Equip/Tooling <input type="checkbox"/> Handling/Presservation <input type="checkbox"/> Material <input type="checkbox"/> Product Improvement <input checked="" type="checkbox"/> Process Improvement <input type="checkbox"/> Human Factors <input type="checkbox"/>				FAULT CATEGORY <table border="0"><tr><td><input type="checkbox"/> Pressure/Forced</td><td><input type="checkbox"/> Contamination</td><td><input type="checkbox"/> Power Loss/Surge</td><td><input type="checkbox"/> Positioned Wrong</td></tr><tr><td><input type="checkbox"/> Bending</td><td><input type="checkbox"/> Misaligned/off center</td><td><input type="checkbox"/> Folio/Program</td><td><input type="checkbox"/> Outside Tolerance</td></tr><tr><td><input type="checkbox"/> Crushing</td><td><input type="checkbox"/> BOM/Route</td><td><input type="checkbox"/> Grain Direction</td><td><input type="checkbox"/> Drawing</td></tr><tr><td><input type="checkbox"/> Cracks</td><td><input type="checkbox"/> Broken/Damage/Defect</td><td><input type="checkbox"/> Weld</td><td><input type="checkbox"/> Finish</td></tr><tr><td><input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist</td><td><input type="checkbox"/> Incomplete/Unclear Instructions</td><td><input type="checkbox"/> Wrong Stock Pulled</td><td><input type="checkbox"/> Part Lost/Missing</td></tr><tr><td><input type="checkbox"/> Marks/Chatter</td><td><input type="checkbox"/> Drill Holes</td><td><input type="checkbox"/> Out of Sequence</td><td><input type="checkbox"/> Misread</td></tr><tr><td><input type="checkbox"/> Mislabeled</td><td><input type="checkbox"/> Fit/Function</td><td><input type="checkbox"/> Off-set/Set-up</td><td></td></tr></table>				<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Contamination	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Bending	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Tolerance	<input type="checkbox"/> Crushing	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain Direction	<input type="checkbox"/> Drawing	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Weld	<input type="checkbox"/> Finish	<input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist	<input type="checkbox"/> Incomplete/Unclear Instructions	<input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Misread	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Off-set/Set-up	
<input type="checkbox"/> Pressure/Forced	<input type="checkbox"/> Contamination	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Positioned Wrong																																
<input type="checkbox"/> Bending	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Tolerance																																
<input type="checkbox"/> Crushing	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain Direction	<input type="checkbox"/> Drawing																																
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Weld	<input type="checkbox"/> Finish																																
<input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist	<input type="checkbox"/> Incomplete/Unclear Instructions	<input type="checkbox"/> Wrong Stock Pulled	<input type="checkbox"/> Part Lost/Missing																																
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Misread																																
<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Off-set/Set-up																																	
Other/Details: _____																																			

UNDER REVIEW

URF 19-045 19.10.23 (VM)